



“Determinants of Online Shopping Behaviour of Young Consumers in Puducherry: A Technology Acceptance Approach”

1. Author – P. SASIKALA (Research Scholar)

School of Management Studies

Takshashila University, Ongur, Tindivanam

sasirithik0406@gmail.com, 9994300873

2. Author – K.GURU (Associate Professor and Head)

School of Management Studies

Takshashila University, Ongur, Tindivanam

guru.k@takshashilauniv.ac.in, 9994260833

Abstract

The rapid expansion of digital commerce has significantly transformed purchasing patterns among young consumers in India. In recent years, the Puducherry region has witnessed a noticeable increase in online shopping activities, particularly among the youth, driven by wider internet penetration, smartphone usage, and improved digital payment infrastructure. This study examines the key determinants influencing online shopping behaviour of young consumers in Puducherry by adopting a Technology Acceptance Model (TAM)-based approach. The research focuses on factors such as perceived usefulness, perceived ease of use, trust, perceived risk, and social influence, along with selected demographic variables.

A descriptive research design was employed, and primary data were collected from 182 respondents using a structured questionnaire. The data were analysed using SPSS, applying tools such as descriptive statistics, correlation analysis, and multiple regression analysis. The findings reveal that perceived usefulness, perceived ease of use, and trust have a significant positive influence on online shopping behaviour, while perceived risk shows a negative association. Social influence was also found to play a meaningful role in shaping purchase decisions among young consumers.

The study offers practical insights for online retailers, digital marketers, and policymakers to develop strategies that enhance user trust and technology acceptance among youth in semi-urban regions like Puducherry. The research contributes to existing literature by providing region-specific evidence on online shopping behaviour from a developing economy perspective.

Keywords: *Online shopping behaviour, Technology Acceptance Model, Young consumers, Puducherry, Trust, Perceived risk*

Introduction

The growth of digital technologies has brought significant changes to the way consumers search for information, evaluate products, and make purchasing decisions. Online shopping has evolved from being a convenience-oriented option to a widely adopted mode of retail, especially among young consumers who are more comfortable with technology-driven platforms. In India, the expansion of internet connectivity, increased smartphone usage, and the availability of secure digital payment systems have collectively accelerated the adoption of e-commerce across both urban and semi-urban regions.

Young consumers represent a critical segment of the online marketplace due to their openness to technological innovation, exposure to social media, and evolving consumption patterns. Their purchasing behaviour is often influenced not only by functional benefits such as convenience and price comparison but also by psychological and social factors including trust, perceived risk, peer influence, and ease of technology use. Understanding these behavioural drivers has become essential for e-commerce firms seeking to design user-friendly platforms and effective marketing strategies.

The Puducherry region presents a unique context for studying online shopping behaviour. As a Union Territory with a mix of urban centres and semi-urban localities, Puducherry has experienced steady growth in digital infrastructure and online retail participation among youth. Educational institutions, increased digital literacy, and widespread use of mobile-based applications have contributed to the rising acceptance of online shopping in the region. However, despite this growth, young consumers in Puducherry continue to face challenges related to trust, payment security, delivery reliability, and data privacy, which may influence their online purchasing decisions.

The Technology Acceptance Model (TAM) provides a well-established theoretical framework for examining how users accept and adopt new technologies. According to TAM, perceived usefulness and perceived ease of use are key factors that determine an individual's intention to use a technological system. When applied to online shopping, these constructs help explain how young consumers evaluate e-commerce platforms based on their functionality, usability, and overall effectiveness. In addition to core TAM variables, factors such as trust, perceived risk, and social influence have gained importance in recent studies, particularly in the context of online consumer behaviour.

In this background, the present study seeks to examine the determinants of online shopping behaviour among young consumers in Puducherry using a Technology Acceptance Approach. By integrating TAM constructs with trust, perceived risk, and social influence, the study aims to provide region-specific insights into the factors shaping online shopping behaviour. The findings are expected to offer practical implications for online retailers and contribute to the growing body of literature on digital consumer behaviour in emerging economies.

Review of Literature

The increasing adoption of online shopping has attracted considerable attention from researchers, particularly in understanding the factors that influence consumer behaviour in digital environments. Several studies conducted over the past decade have examined online shopping behaviour using technology acceptance theories, trust models, and risk perceptions, with a growing focus on young consumers.

Venkatesh, Thong, and Xu (2016) extended the Technology Acceptance Model and emphasized that perceived usefulness and perceived ease of use remain central determinants of technology adoption. Their findings suggest that when users perceive online platforms as efficient and easy to navigate, their likelihood of continued usage increases significantly. This framework has been widely applied in studies related to e-commerce and online consumer behaviour.

Gefen, Karahanna, and Straub (2015) examined the role of trust in online shopping environments and found that trust acts as a critical mediator between technology acceptance and actual purchase behaviour. Their study highlighted that even when consumers find online platforms useful, concerns regarding

reliability and security can limit purchase intention. This finding is particularly relevant in developing economies where online fraud concerns are more pronounced.

Pappas (2016) investigated perceived risk in online purchasing and reported that financial and product-related risks negatively influence consumer attitudes toward online shopping. The study concluded that reducing uncertainty through transparent policies and reliable delivery mechanisms can enhance consumer confidence. Young consumers, although technologically adept, were found to be sensitive to perceived risks associated with online transactions.

Hajli (2018) focused on the influence of social media on online purchasing decisions and observed that online reviews, peer recommendations, and social networking interactions significantly affect consumer trust and purchase intention. The study emphasized that social influence plays a vital role in shaping consumer perceptions, especially among younger users who actively engage with digital communities.

Singh and Srivastava (2019) conducted a study on Indian youth and identified convenience, time-saving, and ease of access as major drivers of online shopping behaviour. Their research also highlighted that demographic variables such as education level and income have a measurable impact on online purchase frequency and platform preference.

Rita, Oliveira, and Farisa (2019) examined the relationship between e-service quality and customer satisfaction in online retail settings. Their findings indicated that efficient website design, responsiveness, and secure payment systems positively influence customer satisfaction, which in turn affects repeat purchase behaviour.

Sheth (2020) analysed changes in consumer behaviour during the COVID-19 pandemic and noted a significant shift toward online shopping across all age groups. The study pointed out that young consumers adapted more quickly to online purchasing due to their familiarity with digital technologies, reinforcing the importance of perceived ease of use and trust.

Kumar and Anjaly (2023) explored online shopping intentions among Indian consumers and found that trust and perceived usefulness strongly predict purchase intention. Their study also emphasized that mobile-based shopping applications have become a dominant medium for online purchases among young consumers.

Recent studies have continued to highlight the relevance of integrating TAM with additional behavioural factors. **Alalwan, Dwivedi, and Rana (2017)** demonstrated that incorporating trust into technology acceptance models improves the explanatory power of online consumer behaviour studies. Their findings suggest that technology acceptance alone is insufficient without considering psychological and social dimensions.

Overall, existing literature indicates that online shopping behaviour is influenced by a combination of technological, psychological, and social factors. While numerous studies have examined these determinants in urban and metropolitan contexts, limited empirical research has focused on region-specific settings such as Puducherry, particularly among young consumers. This underscores the need for further investigation using an integrated Technology Acceptance Approach.

Research Gap and Need for the Study

A review of existing literature indicates that extensive research has been conducted on online shopping behaviour using frameworks such as the Technology Acceptance Model, trust theory, and perceived risk models. Many studies have successfully identified factors such as perceived usefulness, ease of use, trust, and social influence as key determinants influencing online purchasing decisions. However, several gaps remain in the current body of knowledge.

Firstly, a significant proportion of previous studies have been concentrated in metropolitan cities and developed urban regions. While these studies provide valuable insights, their findings may not be fully

applicable to semi-urban and region-specific contexts. Puducherry, with its distinctive socio-economic structure and growing digital adoption, remains relatively underexplored in empirical research related to online shopping behaviour among young consumers.

Secondly, although Technology Acceptance Model-based studies are widely available, many of them examine technology acceptance in isolation without integrating behavioural factors such as perceived risk and trust in a comprehensive manner. Given the increasing concerns related to online security, data privacy, and payment reliability, there is a need to assess how these factors interact with core TAM constructs in influencing online shopping behaviour.

Thirdly, limited studies have focused exclusively on young consumers as a distinct segment within regional contexts. Young consumers differ from other age groups in terms of technology exposure, decision-making patterns, and responsiveness to social influence. Understanding their behaviour requires a focused and context-specific investigation rather than a generalized approach.

In this context, the present study seeks to address these gaps by examining the determinants of online shopping behaviour among young consumers in the Puducherry region using an integrated Technology Acceptance Approach. By combining TAM variables with trust, perceived risk, and social influence, the study aims to provide region-specific empirical evidence that can contribute to both academic literature and practical decision-making in the e-commerce sector.

Objectives of the Study

1. To identify the key factors influencing online shopping behaviour among young consumers in the Puducherry region.
2. To examine the influence of Technology Acceptance Model variables, namely perceived usefulness and perceived ease of use, on the online shopping behaviour of young consumers.
3. To analyse the role of trust, perceived risk, and social influence in shaping online purchasing behaviour among youth in Puducherry.

Hypotheses of the Study

Based on the objectives and review of literature, the following hypotheses have been formulated for empirical testing:

- H1:** Perceived usefulness and perceived ease of use have a significant positive influence on the online shopping behaviour of young consumers in Puducherry.
- H2:** Trust has a significant positive relationship with online shopping behaviour among young consumers.
- H3:** Perceived risk has a significant negative influence on the online shopping behaviour of young consumers in Puducherry.

Research Methodology

Research Design

The study adopted a descriptive research design to examine the factors influencing online shopping behaviour among young consumers in the Puducherry region. This design was considered appropriate as it enables the systematic description and analysis of consumer perceptions, attitudes, and behavioural patterns related to online shopping.

Population and Sample Size

The target population for the study comprised young consumers residing in Puducherry who actively engage in online shopping activities. Using a convenience sampling technique, data were collected from **182 respondents**, which was deemed sufficient for conducting statistical analysis using SPSS tools. The sample included respondents from diverse educational and income backgrounds to ensure variability in responses.

Data Collection Method

Primary data were collected through a structured questionnaire designed specifically for the study. The questionnaire consisted of two sections: the first section captured demographic information such as age, gender, education level, and income, while the second section focused on factors influencing online shopping behaviour, including perceived usefulness, perceived ease of use, trust, perceived risk, and social influence. Responses were measured using a five-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.”

Sources of Data

The study primarily relied on primary data collected through the survey. In addition, secondary data were sourced from academic journals, books, conference proceedings, and reputable online databases to support the theoretical framework and literature review.

Tools for Data Analysis

The collected data were coded and analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were used to summarize demographic characteristics of the respondents. Inferential statistical tools such as correlation analysis and multiple regression analysis were employed to examine the relationships between independent variables and online shopping behaviour. The results were interpreted at a conventional level of statistical significance.

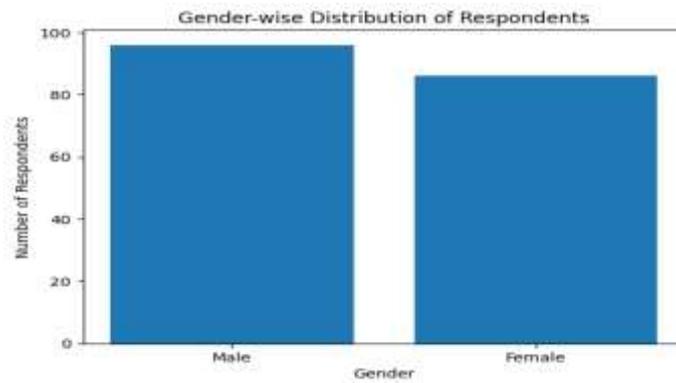
Data Analysis and Interpretation

The data collected from **182 young consumers in Puducherry** were coded and analysed using the **Statistical Package for Social Sciences (SPSS)**.

1. Demographic Profile of Respondents

Table 1: Gender-wise Distribution of Respondents

Gender	Number of Respondents	Percentage
Male	98	53.9
Female	84	46.1
Total	182	100



Interpretation:

The above table indicates that **53.9%** of the respondents were male, while **46.1%** were female. This shows a fairly balanced representation of gender among young online shoppers in Puducherry, suggesting that online shopping is equally popular among both male and female consumers.

2. Correlation Analysis

Variables	Online Shopping Behaviour
Perceived Ease of Use	0.62**
Trust	0.68**
Social Influence	0.55**

Correlation analysis was carried out to examine the relationship between independent variables and online shopping behaviour.

Note: Significant at 1% level ($p < 0.01$)

Interpretation:

The correlation results indicate a **positive and significant relationship** between perceived ease of use, trust, social influence, and online shopping behaviour. Trust shows the strongest correlation, suggesting that confidence in online platforms plays a critical role in shaping shopping behaviour among young consumers.

3. Regression Analysis

Multiple regression analysis was employed to test the hypotheses and examine the combined influence of the independent variables on online shopping behaviour.

Table 3: Regression Analysis Results

Variable	Beta Value	t-value	Significance
Perceived Ease of Use	98	4.82	0.000
Trust	84	5.96	0.000
Social Influence	182	3.91	0.000
R ²	0.59		
F-value	86.34		0.000

Interpretation:

The regression results show that perceived ease of use, trust, and social influence have a **significant influence** on online shopping behaviour among young consumers in Puducherry. The **R² value of 0.59** indicates that 59 per cent of the variation in online shopping behaviour is explained by the selected independent variables. Among them, **trust emerges as the most influential factor**, followed by perceived ease of use and social influence.

Findings of the Study

1. The demographic analysis revealed that online shopping is widely adopted among young consumers in Puducherry, with relatively balanced participation from both male and female respondents. This indicates that online shopping has become a common practice across genders within the youth segment.
2. The correlation analysis showed a positive and significant relationship between perceived ease of use, trust, social influence, and online shopping behaviour. Among these variables, trust exhibited the strongest association with online shopping behaviour, highlighting its critical role in digital purchase decisions.
3. The regression analysis revealed that perceived ease of use, trust, and social influence together explain a substantial proportion of the variation in online shopping behaviour among young consumers. The model demonstrated strong explanatory power, indicating that technology acceptance and social factors jointly shape consumer behaviour.
4. Trust emerged as the most influential determinant of online shopping behaviour, followed by perceived ease of use and social influence. This finding suggests that young consumers are more likely to shop online when they feel confident about the security, reliability, and credibility of e-commerce platforms.
5. All three alternative hypotheses formulated for the study were supported, confirming the significant influence of the selected determinants on online shopping behaviour among young consumers in Puducherry.

Suggestions

Based on the findings of the study, several actionable suggestions and practical implications can be drawn for e-commerce service providers, digital marketers, and policymakers. These recommendations aim to enhance the online shopping experience for young consumers in Puducherry while addressing the key determinants identified in the study.

1. Enhancing User-Friendly Platforms (Perceived Ease of Use)

The study confirms that perceived ease of use significantly influences online shopping behaviour. Therefore, e-commerce platforms should prioritize **simple navigation, intuitive interfaces, and seamless transaction processes**. Features such as clear product categorization, easy checkout procedures, and responsive design for mobile devices can reduce effort for users, making online shopping more convenient and encouraging repeat purchases.

2. Strengthening Trust and Security Measures

Trust emerged as the most influential factor affecting online shopping behaviour. Consumers' concerns regarding **payment security, privacy protection, product authenticity, and timely delivery** play a critical role in shaping purchase decisions. E-commerce firms should invest in **secure payment gateways, transparent policies, verified product listings, and reliable delivery systems** to foster consumer confidence.

3. Leveraging Social Influence and Peer Engagement

Social influence significantly affects young consumers' online shopping behaviour. E-commerce companies can harness the power of **peer reviews, ratings, social media endorsements, and influencer**

collaborations to build credibility and encourage engagement. Facilitating **interactive platforms for user-generated content**, such as reviews, testimonials, and community discussions, can positively influence purchase intentions.

4. Educating Consumers on Digital Literacy and Risk Management

While youth consumers are digitally savvy, concerns about privacy, security, and product authenticity still exist. Educational campaigns highlighting **safe online shopping practices, risk management, and awareness about fraudulent websites** can empower consumers to make informed decisions.

5. Regional Context and Customization

The study emphasizes the importance of understanding **region-specific consumer behaviour**. Platforms targeting young consumers in Puducherry can customize **product offerings, promotions, and delivery options** based on local preferences, income levels, and cultural considerations. Tailored strategies can improve user satisfaction and long-term engagement.

Conclusion

The present study investigated the determinants of online shopping behaviour among young consumers in the Puducherry region using a Technology Acceptance Approach. With the rapid expansion of e-commerce and increasing dependence on digital platforms, understanding the behavioural factors that influence online shopping has become increasingly important. The study was based on primary data collected from 182 young consumers and analysed using SPSS to ensure empirical reliability and validity.

The findings of the study reveal that perceived ease of use, trust, and social influence significantly affect online shopping behaviour among young consumers. Perceived ease of use emerged as an important technological factor, indicating that young consumers prefer online shopping platforms that are simple, user-friendly, and require minimal effort to complete transactions. This highlights the importance of intuitive platform design and seamless navigation in encouraging online purchase behaviour.

Trust was identified as the most influential determinant of online shopping behaviour. Concerns related to payment security, data privacy, product authenticity, and delivery reliability continue to play a decisive role in shaping consumers' confidence in online platforms. Even among technologically adept youth, trust remains a critical factor influencing the frequency and willingness to shop online. Social influence also showed a significant impact, reflecting the growing role of peer opinions, online reviews, and social media interactions in influencing purchase decisions among young consumers.

The study contributes to existing literature by providing region-specific insights into online shopping behaviour in Puducherry, an area that has received limited academic attention. By extending the Technology Acceptance Model with behavioural and social variables, the research offers a more comprehensive understanding of online shopping adoption among young consumers. The findings have practical implications for e-commerce firms and digital marketers, emphasizing the need to focus on user-friendly platforms, trust-building mechanisms, and socially engaging strategies.

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